

NEW SPECIES OF MYRTACEAE FROM ECUADOR AND PERU

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ABSTRACT

Two new species of Myrtaceae from Ecuador and Peru are described and illustrated: ***Calyptranthes manuensis*** and ***Eugenia yasuniana***.

RESUMEN

Se describen y se ilustran dos especies nuevas de Myrtaceae del Ecuador y Peru: ***Calyptranthes manuensis*** y ***Eugenia yasuniana***.

INTRODUCTION

In preparation for the treatment of Myrtaceae for the Flora of Ecuador and adding to the checklist of species for the country (Holst 1999), two new species are described in this paper: *Calyptranthes manuensis* and *Eugenia yasuniana*.

Calyptranthes manuensis B. Holst & M.L. Kawasaki, sp. nov. (**Figs. 1A–G**). TYPE: PERU. MADRE DE DIOS: Manu, Parque Nacional del Manu, Río Manu, Cocha Cashu Station, 350 m, 8 Oct 1980 (fl), R. Foster 5501 (HOLOTYPE: F; ISOTYPE: SEL).

Ab omnibus speciebus generis characteribus combinatis differt: inflorescentiis reductis, alabastris oblongis, subsessilibus, follis nervo medio supra biconvexo.

Shrubs or small trees 1–10 m high, mostly glabrous except for the sericeous young vegetative growth, trichomes dibrachiate, yellowish-brown; branchlets terete, often with 1 or 2 pairs of narrowly elliptic, navicular bracts, 1–2.5 × 0.2–0.4 cm. Young leaves drooping, reddish; **leaf blades** narrowly to broadly elliptic to narrowly obovate, 14–18 × (3–)5–8 cm, chartaceous, thinly sericeous when very young on lower surface, becoming mostly glabrous, drying brownish-green, paler below; apex abruptly acuminate, the acumen to ca. 1 cm long; base cuneate to obtuse; midvein biconvex above, convex below; lateral veins 20–25 pairs, slender, inconspicuous, slightly convex on both surfaces; marginal veins 2, the innermost 2–3 mm from blade margin, similar to the lateral veins; glands numerous, light-brown, salient on both surfaces; petiole 0.5–1.2 cm long, flattened, glabrous. **Inflorescences** paired, greatly abbreviated, 2-flowered spikes borne at the nodes of the fallen bracts, ca. 1.5–2 cm long, the main axis 2–3 mm long, densely sericeous to glabrous, the pedicels 0–5 mm long, stout when present. **Flower buds** oblong, 8–10 mm long, gland-dotted; bracteoles subulate, ca. 2 mm long, early deciduous; calyx calyptrate, puberulous to glabrous, acuminate, deciduous; petals absent; stamens numerous, the filaments ca. 4–5 mm long, the anthers ca. 0.5 mm long; style ca. 6 mm long, the stigma capitate; hypanthium prolonged ca. 3–4 mm beyond the ovary, the upper portion explanate at anthesis, densely puberulous basally to glabrous without; disk ca. 3 mm diam.; ovary 2-locular, with 2 ovules per locule. **Fruits** globose, 2–3 cm diam., crowned by a circular hypanthium scar, gland-dotted, glabrous, dark-purple to black; seeds 1 or 2, ca. 9 × 7 mm, the seed coat membranous; embryo myrcioid, the cotyledons leafy and folded, the radicle well developed, equaling cotyledons in length.

Distribution.—This species, first known from Amazonian Peru (Parque Nacional del

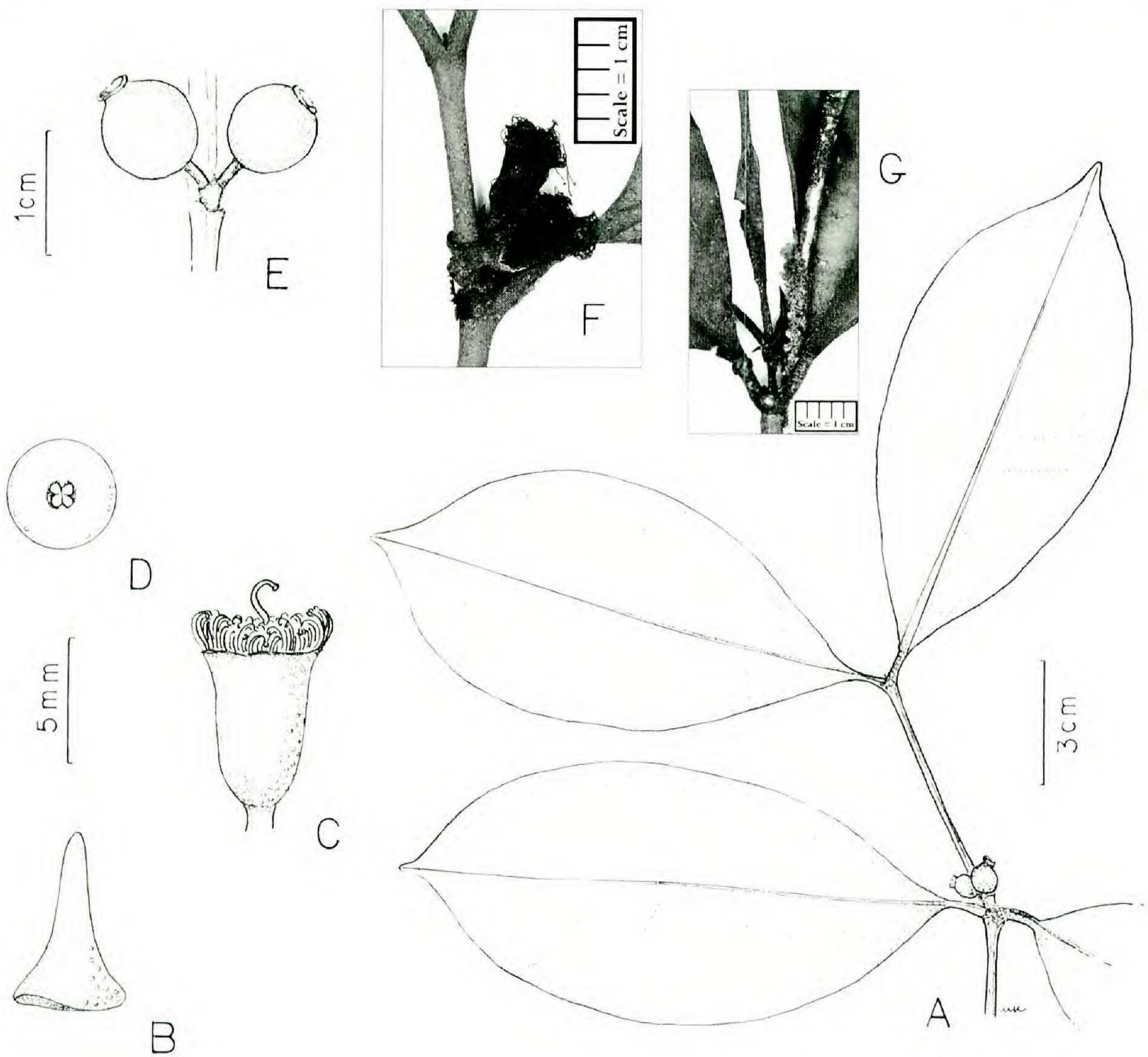


FIG. 1. *Calyptranthes manuensis* B. Holst & M.L. Kawasaki. **A.** Leaves and young fruits. **B.** Calyptra. **C.** Flower. **D.** Transverse section of ovary. **E.** Fruits. **F.** Detail of inflorescence. **G.** Detail of branchlet with navicular bracts. (A, Foster et al. 7186; B–D, F, Foster 5501; E, Foster & Terborgh 5244; G, Croat 72503).

Manu in Madre de Dios), was later collected in Ecuador; it occurs in lowland humid (floodplain) forests, at 320–350 m elevation.

Calyptranthes manuensis is characterized by the much reduced inflorescences, subsessile to short-pedicellate, oblong flower buds, and leaves with biconvex midvein.

Additional collections examined: **ECUADOR. Napo:** Jatun Sacha, Rio Napo, at mouth of Rio Huambuno, 3 km downstream from Campana Cocha, primary forest on river floodplain, 00°55'S, 77°25'W, 350 m, 29 Jun 1987 (fr), D. Neill, W. Wilbert & SFS Students 7742 (MO, SEL). **Pastaza:** Vía Auca, 115 km S of Coca, ca. of Río Tigüino, road PETRO-CANADA in construction, 01°15'S, 76°55'W, 320 m, 24 May 1989 (fr), D. Rubio 133 (F, MO, SEL); Vía Auca, 115 km S of Coca, ca. of Río Tigüino, road PETRO-CANADA in construction, 01°15'S, 76°55'W, 320 m, 24 May 1989 (fr), D. Rubio 153 (F, MO, SEL); Vía Auca, 110 km S of Coca, 10 km from Río Tigüino, Sector Cristal, 01°15'S, 76°55'W, 320 m, 7 Jan 1989 (fr), W. Palacios, C. Iguago & F. Hurtado 3361 (F, MO, SEL). **Sucumbios:** Lago Agrio, along road between Lago Agrio (Nueva Loja) and Coca (Pto. Francisco de Orellana); 26 km S of Lago Agrio, 4.6 km S of El Emo, then 2.8 km W of main Lago Agrio-Coca Road, along farm road, 00°05'S, 76°54'W, 355 m, 29 Feb 1992 (fr), T. Croat 72503 (MO, SEL). **PERU. Madre de Dios:** Manu, Parque Nacional del Manu, Río Manu, vicinity of Cocha Cashu Station, 5 Nov 1976 (fl), R. Foster & J. Terborgh 5189 (F); Manu, Parque Nacional del Manu, Río Manu, vicinity of Cocha Cashu Station, 27 Nov 1976 (fr), R. Foster & J. Terborgh 5244 (F); Manu, Parque Nacional del Manu, Río Manu, vicinity of Cocha Cashu Station, 22 Apr 1977 (fr), R. Foster & C. Janson 6279 (F); Manu, Parque Nacional del Manu, Río Manu, Cocha Cashu Station, 22 Oct 1979 (y fr), R. Foster 7186 (F); Manu, Parque Nacional del Manu,

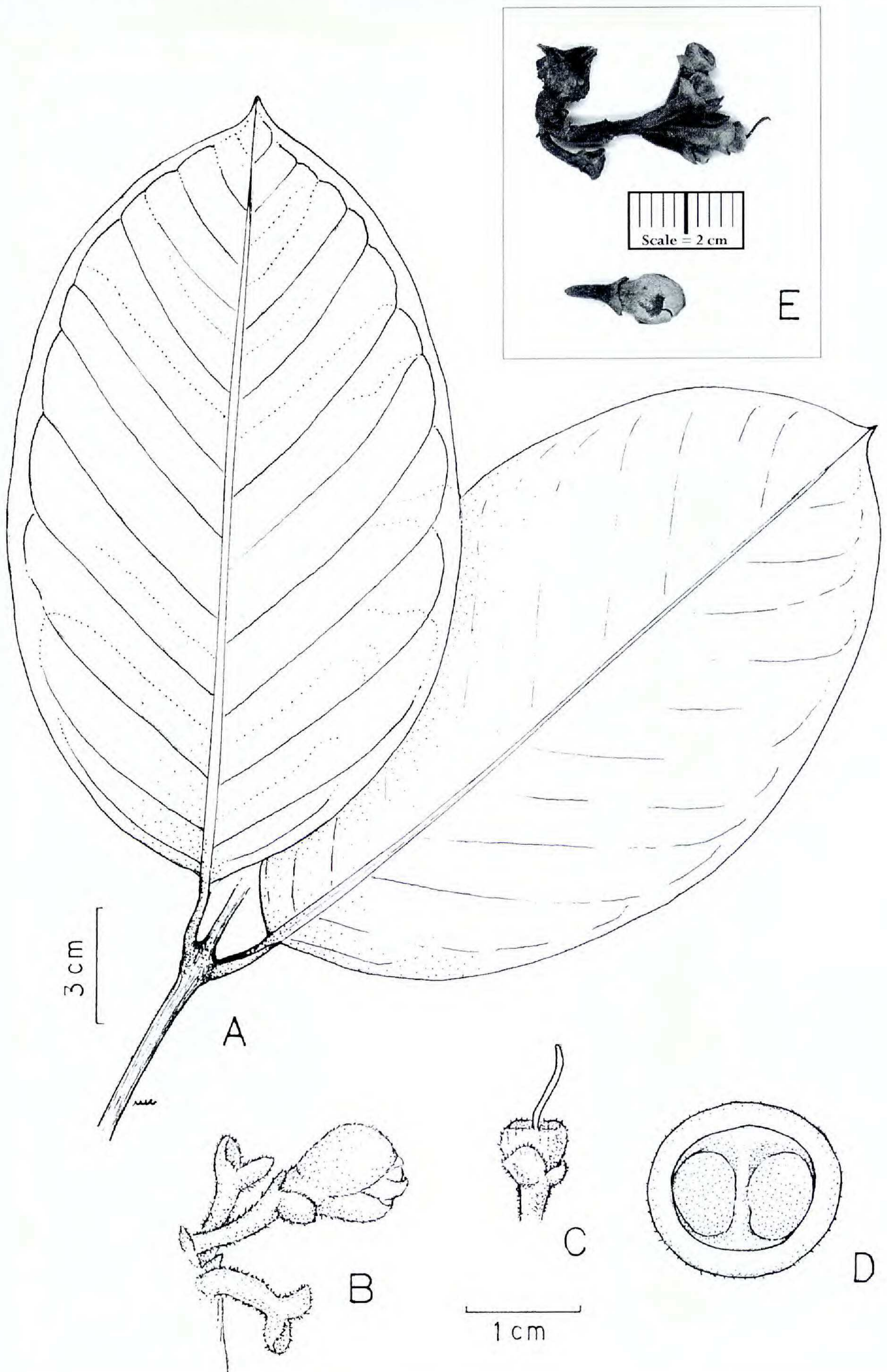


FIG. 2. *Eugenia yasuniana* B. Holst & M.L. Kawasaki. A. Leaves. B. Inflorescence. C. Flower after stamens and calyx-lobes have fallen. D. Medial section of fruit. E. Inflorescence and flower. (A–C, E, Romoleroux 2021; D, Villa & Vélez 852).

Río Manu, Cocha Cashu Station, 4 May 1981 (fr), *R. Foster & C. Janson* 8385 (F); Manu, Parque Nacional del Manu, Río Manu, Cocha Cashu Station, 11°50'S, 71°25'W, 350 m, 11 Jul 1984 (fr), *R. Foster* 9613 (F, MO).

Eugenia yasuniana B. Holst & M.L. Kawasaki, sp. nov. (**Figs. 2A–E**). TYPE: ECUADOR. ORELLANA (“NAPO” on label): Estación Científica Yasuní, Tiputini River, NW of confluence with Tivacuno River; 6 km E of main Maxus Road, Km 44, on spur road to Tivacuno oilwell, near 50 ha plot, sendero Norte, 00°38'S, 76°30'W, 200–300 m, 21 Nov 1995 (fl), *K. Romoleroux & R. Foster* 2021 (HOLOTYPE: QCA; ISOTYPES: F, SEL).

Maxime affinis *Eugenia myrobalanae* DC. sed diversa: folliis lamina subtus sericea (nec puberula), nervo marginali praesenti (nec absenti), pedicellis brevioribus, calycis lobis deciduis (nec persistentibus) et fructibus globosis (nec ellipsoideis).

Trees 10–12 m high, the trichomes simple, yellowish-brown to yellowish on leaves, reddish-brown to yellowish-brown on inflorescences; branchlets slightly compressed in cross section. **Leaf blades** narrowly elliptic to elliptic, 15.5–23.3 × 7.5–14 cm, coriaceous, the upper surface puberulous to glabrous, drying brownish-green to dark-brown, the lower surface paler, densely sericeous-pubescent, glabrescent; apex abruptly acuminate, the acumens to ca. 1 cm long; base cuneate to obtuse; midvein narrowly convex, in a channel, appearing sulcate above, convex below; lateral veins 10–13 pairs, impressed to slightly convex above, convex below, arcuate-ascending, the arches forming a marginal vein to 5 mm from blade margin; glands indistinct to numerous, punctiform, dark-brown, plane to convex above, indistinct below; petiole ca. 2 cm long, channeled, puberulous to glabrous. **Inflorescences** racemose, sometimes shortly so and appearing fasciculate, borne on leafless branches, with up to ca. 8 flowers, the main axis to 4 cm long, the pedicels to 1 cm long, appressed-pubescent. **Flowers** 4-merous; buds subglobose, ca. 1.5 cm long; bracts and bracteoles suborbicular, ca. 3 mm long, persistent; calyx-lobes ovate to broadly ovate, ca. 1 cm long, obtuse, sericeous-pubescent without, deciduous; petals elliptic, ca. 1 cm long; stamens numerous, the filaments ca. 6 mm long, the anthers ca. 1.2 mm long; style ca. 7 mm long, the stigma punctiform; hypanthium not prolonged beyond the ovary, appressed-pubescent without; disk ca. 4–5 mm diam., pubescent; ovary 2-locular, with several ovules per locule. **Fruits** globose, ca. 3–4 cm diam., appressed-puberulous, yellow; seeds 1–2, ca. 2.5 × 1.5 cm long, the seed coat membranous; embryo eugenioid, the cotyledons fleshy, connate, the radicle indistinct.

Distribution.—Known only from Ecuador, in lowland forests of the Estación Científica Yasuní (Orellana), at 200–300 m elevation.

Eugenia yasuniana is related to *E. myrobalana* DC., a species from Amazonian Peru and Brazil, but differs by the leaves being densely sericeous-pubescent below, with a marginal vein (vs. leaves puberulous below, marginal vein absent), pedicels to 1 cm long (vs. 1.2–2.5 cm long), deciduous (vs. persistent) calyx-lobes, and globose (vs. ellipsoid) fruits.

Additional collections examined: **ECUADOR. Orellana:** Estación Científica Yasuní, Tiputini River, NW of confluence with Tivacuno River, 6 km E of main Maxus Road, Km 44, on spur road to Tivacuno oilwell, 50 ha plot, sendero Saino, 00°59'S, 77°45'W, 200–300 m, 6 Feb 1999 (fr), *K. Romoleroux, G. Villa & L. Vélez* 3210 (F, QCA); Estación Científica Yasuní, Tiputini River, NW of confluence with Tivacuno River, 6 km E of Repsol-YPF Road, Km 7, on spur road to oilwell, 00°38'S, 76°30'W, 200–300 m, 29 Jan 2001 (fr), *G. Villa & L. Vélez* 852 (F, QCA).

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